United States Department of Agriculture

Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

Weekly Snowpack / Drought Monitor Update

July 3, 2014

Highlights

Agricultural Weather Highlights – Thursday - July 3, 2014

• "In the **West**, hot, dry weather is promoting fieldwork and crop development, but maintaining heavy irrigation demands. However, the Southwestern monsoon is arriving, along with the appearance of isolated showers.

• On the **Plains**, showers linger across northern Texas, slowing final winter wheat harvest efforts but providing additional drought relief. In Oklahoma, the fact that topsoil moisture is 37% very short to short, while subsoil moisture is 64% very short to short, is reflective of lingering long-term drought in spite of recent rainfall. Meanwhile, warmth is returning to Montana, but cool conditions persist elsewhere on the Plains.

• In the **Corn Belt**, cool, showery weather prevails in portions of the Great Lakes region, particularly across Lower Michigan. Cooler-than-normal conditions also cover the remainder of the Midwest. In much of the soft red winter wheat belt, dry weather favors a return to harvesting, following some rain-related delays.

• In the **South**, Hurricane Arthur—centered about 150 miles south-southwest of Cape Fear, North Carolina, is strengthening and moving northward. Squalls are spreading into the coastal Carolinas. Elsewhere, cool, dry air is overspreading the Mid-South, while hot, humid, showery conditions linger in the Atlantic Coast States.

Outlook: The NWS has issued a hurricane warning along the North Carolina coast from Surf City to the Virginia border. Early on Friday, July 4, Arthur is expected to make its closest pass to North Carolina's Outer Banks, possibly making landfall. Later in the day, conditions will begin to improve along the Mid-Atlantic coast as Arthur begins to accelerate northeastward. Rainfall totals associated with Arthur and an approaching cold front could reach 2 to 6 inches along the Atlantic Seaboard from Florida to Maine. Farther west, showers will return to the northern Plains and Midwest during the weekend and early next week, with 1- to 2-inch totals possible in the latter region. Elsewhere, monsoon showers will begin to develop in the Four Corners States, while hot weather will persist across the remainder of the West and overspread the Plains. The NWS 6- to 10-day outlook for July 8-12 calls for above normal temperatures in the eastern and western U.S., while cooler-than-normal conditions will prevail across the nation's mid-section. Meanwhile, near- to above-normal rainfall across the majority of the U.S. will contrast with drier-than-normal weather in parts of western Texas and the Northwest."

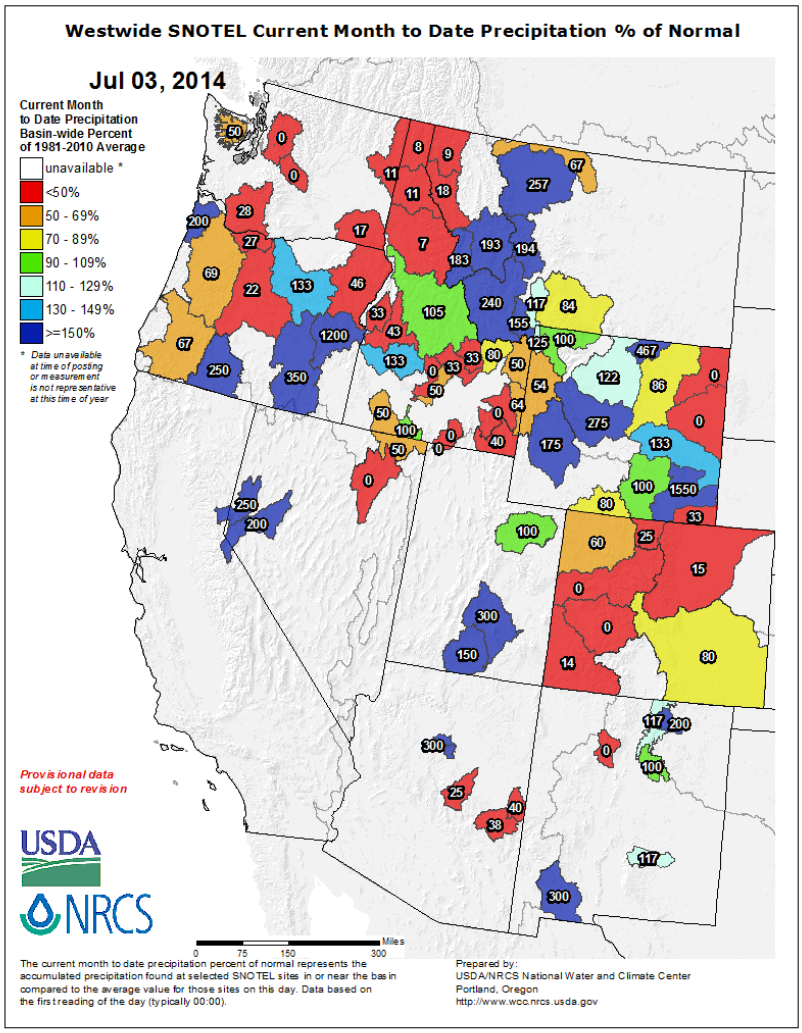
Contact: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB, Washington, D.C. (202-720-2397)

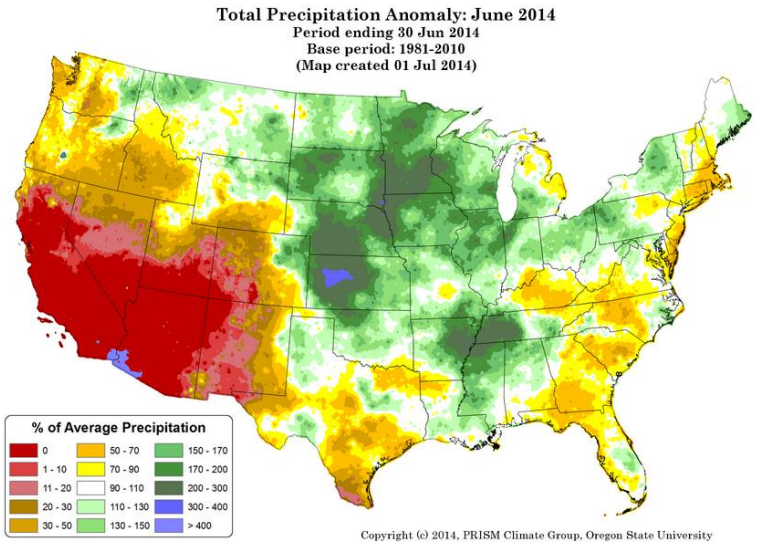
Website: http://www.usda.gov/oce/weather/pubs/Daily/TODAYSWX.pdf.

Precipitation

The July 1 through 3 SNOTEL precipitation percent of normal map shows a wide variety of conditions over much of the West for the first few days of the month. The percent of normal numbers in the scattered areas are exaggerated where normally very little precipitation falls at this time of year.

Click on most maps in this report to enlarge and see latest available update.





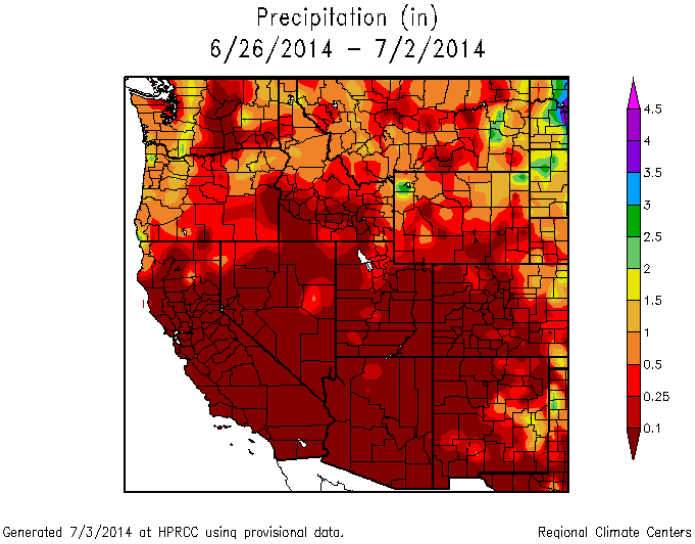
During June 2014, the precipitation anomaly pattern reveals some very high precipitation scattered across the central part of the nation. Most of the West, especially the Southwest, California and southern Texas have seen little or no precipitation. Parts of southeast and along the Atlantic coast from Florida to New England have also recorded drier than normal conditions.

This preliminary daily PRISM precipitation anomaly map contains all available network data, including SNOTEL data, and is updated periodically as additional data become

available and are quality controlled.

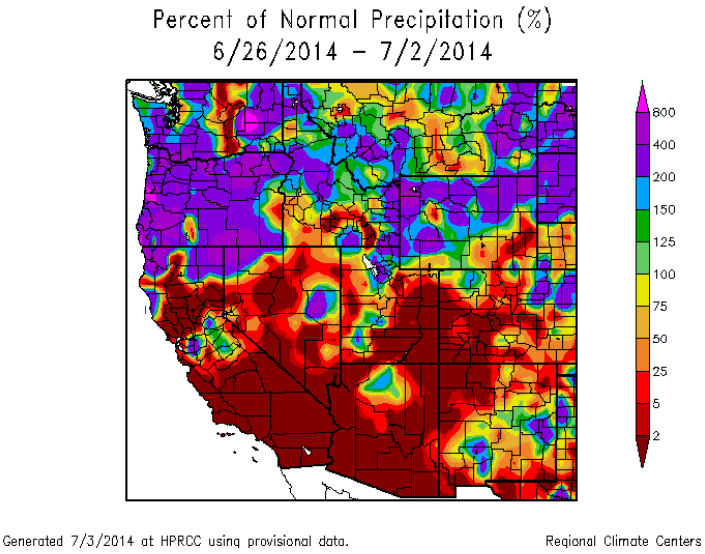
The ACIS 7-day total precipitation map shows mainly dry conditions. Precipitation has fallen in the Cascades and northern Rocky mountains, and scattered thunderstorms are beginning to pop up in areas along the eastern edge of the western states.

Little, if any, precipitation occurred over vast areas of the West. A small area of heavy precipitation did occur over the northern Rockies, and some in the western Great Plains.

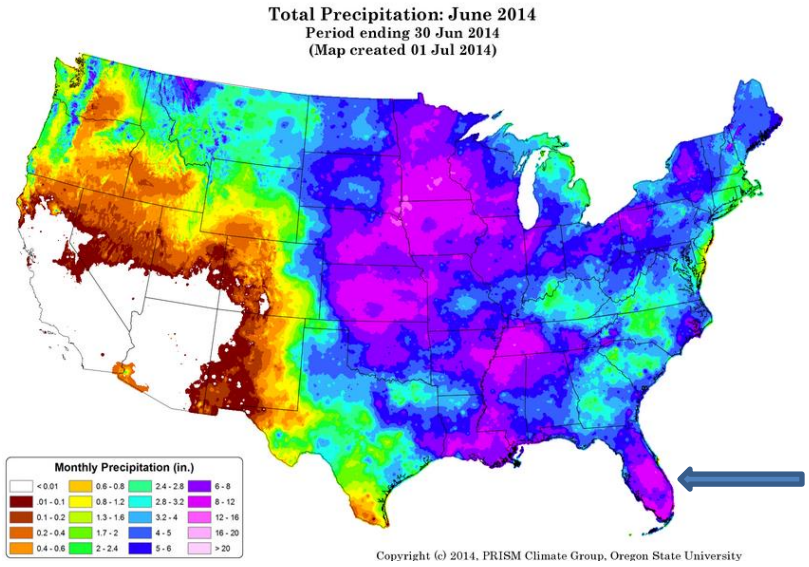


As would be expected based on the map above, this percent of normal map reflects the heaviest scattered precipitation falling across the northern Rockies, and the central and southern Great Plains.

Percent of normal precipitation may be exaggerated in areas where the average for this period is near zero.



Weekly Snowpack and Drought Monitor Update Report



In June 2014 the total precipitation was extremely heavy across the Great Plains from Canada to the lower Mississippi River Valley, and in scattered areas of the East, especially in Florida.

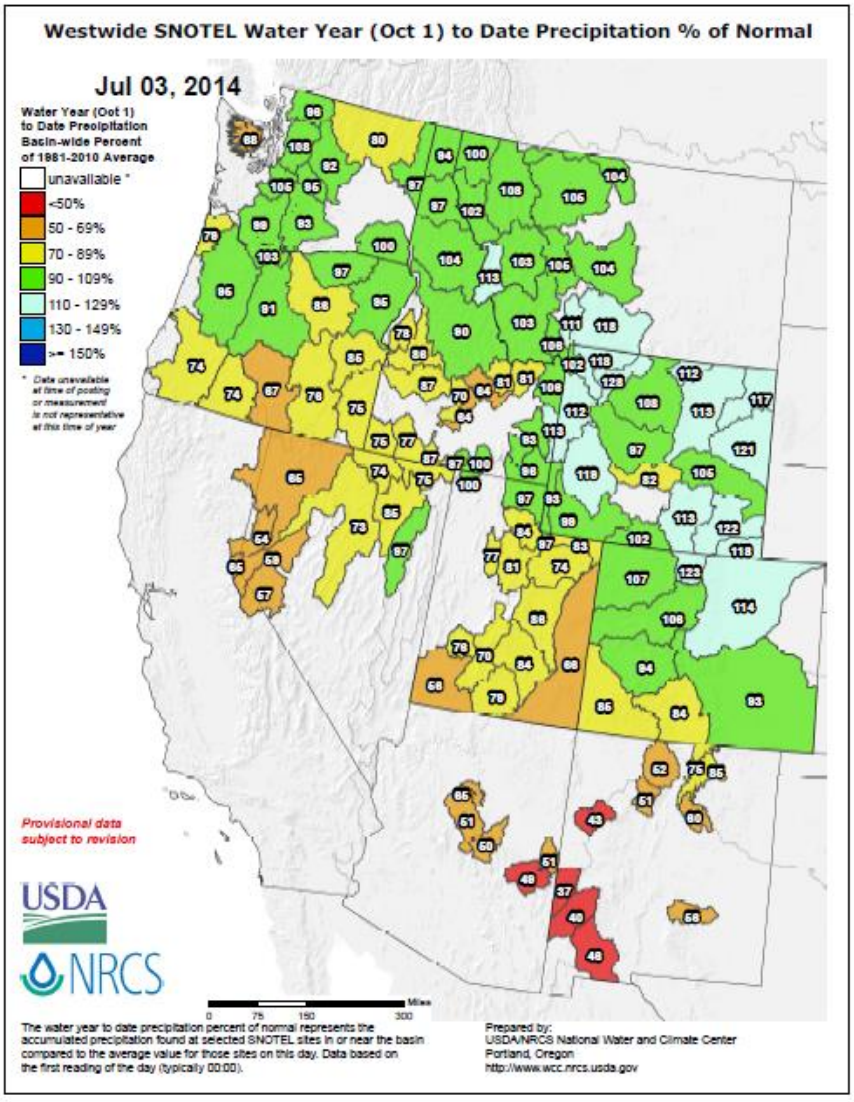
See Go Hydrology for current and forecast conditions over southern Florida.

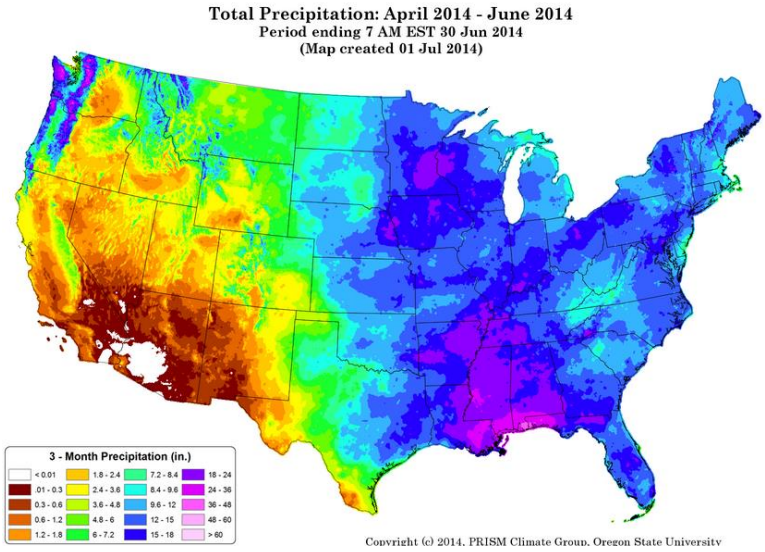
For the 2014 Water Year that began on October 1, 2013, central Montana, most of Wyoming, and northern Colorado are experiencing surpluses.

Near average conditions dominated the northern half of the Cascades, the northern half of Idaho, northwestern-most Montana, the Lower Bear River in eastern Utah and southeast Idaho, and parts of the southern half of Colorado.

The largest deficits are centered over southern Oregon, the Sierra Nevada Mountains in Nevada and California, southern and eastern Utah, Arizona, and New Mexico.

As the Water Year advances, it becomes more difficult for river basins to change bin categories.



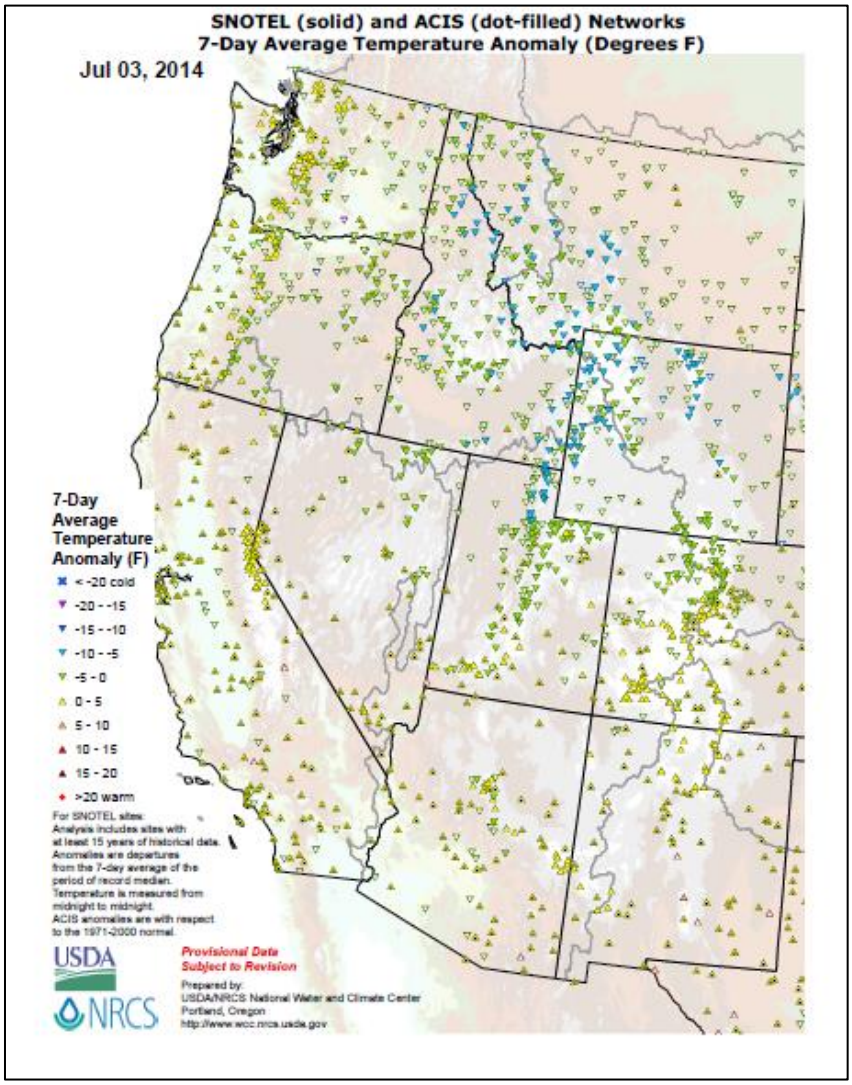


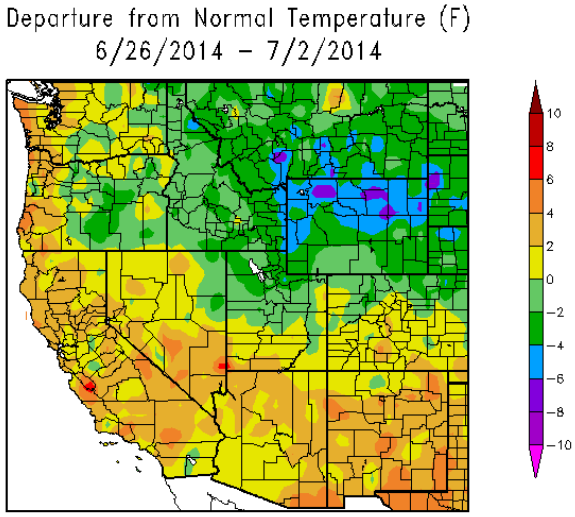
The three-month period (April - June) shows that the eastern half of the nation received precipitation in the range from 5 to greater than 36 inches along the gulf coast.

On the other hand, parts of the West received totals less than 3 inches. The exceptions in the West are over the northern Rockies and Cascades, where totals exceeded 36 inches.

Temperature

SNOTEL and ACIS 7-day temperature anomaly shows temperatures near normal west of the Rockies. Cool to near normal temperatures prevailed over the northern Rockies in Montana, Northeast Idaho, and western Wyoming down to northern Utah.



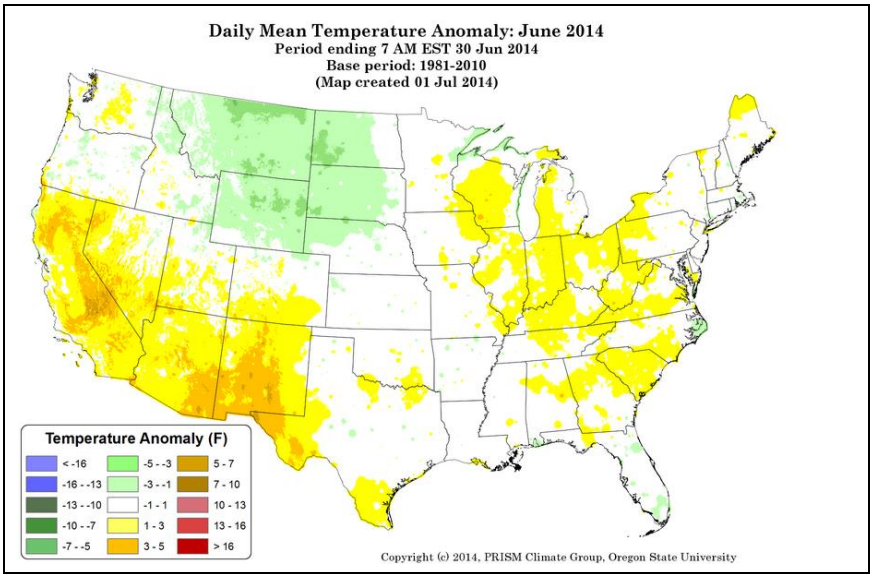


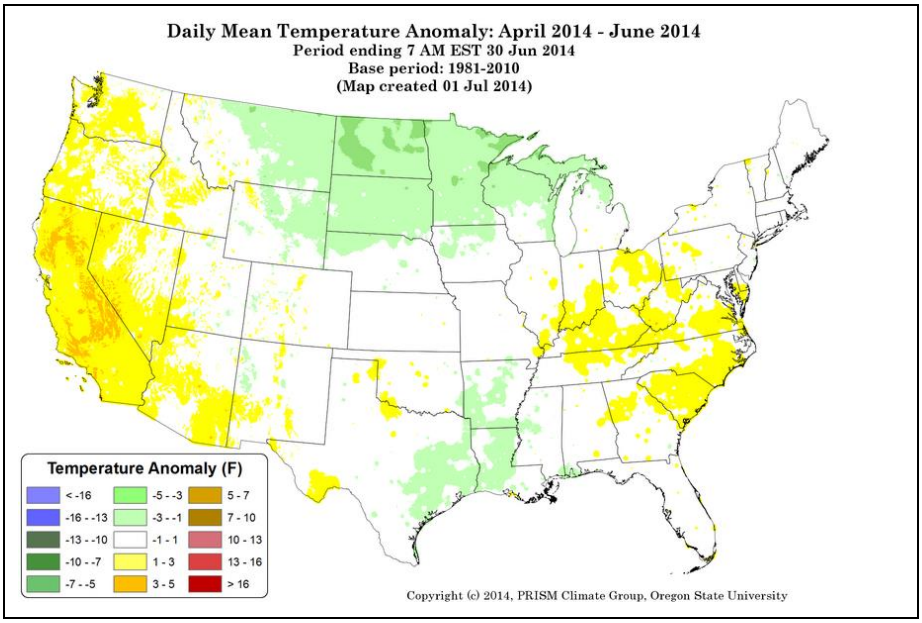
ACIS 7-day average temperature anomalies, ending July 2, show the greatest negative temperature departures scattered over northern Wyoming and southern Montana (<-6°F). The greatest positive temperature departures occurred in southern California and the Southwest (>+6°F).

Also, see Dashboard and the Westwide Drought Tracker

This preliminary PRISM temperature map contains all available network data, including SNOTEL data, and will be updated periodically as additional data become available and are quality controlled.

During June 2014, the temperature anomaly map shows a cold pattern over the northern Great Plains, centered over eastern Montana and Nevada (<-5°F). Above normal temperatures dominated California and the southern parts of New Mexico, Arizona, and southwest Texas (>+5°F).





April – June temperature anomalies for the U.S. in this climate map show the West had near normal to slightly to above normal temperatures mainly in California and the mid-Atlantic states (>+3°F). Most of the remainder of the country reported normal to cool temperatures this spring, with the coolest temperatures in the upper Midwest (<-5°F).

Weather and Drought Summary

National Drought Summary – July 1, 2014

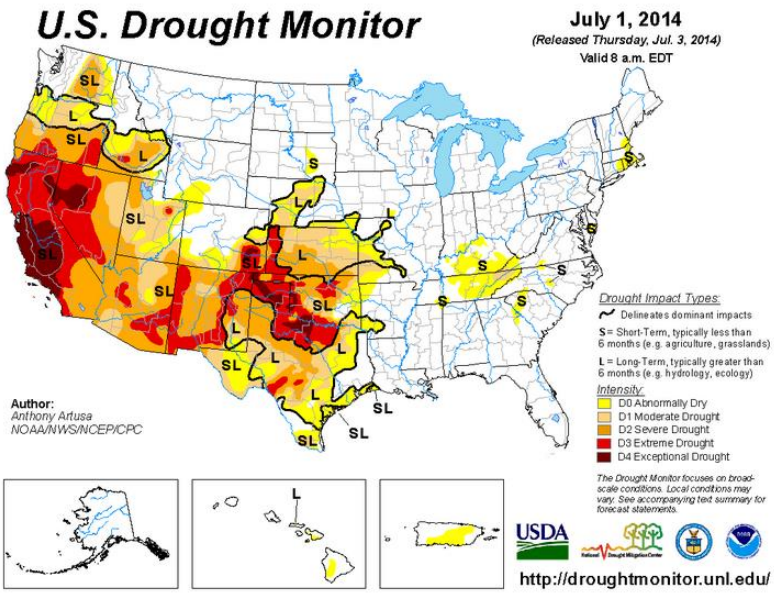
The following **Weather and Drought Summary** is provided by this week's NDMC Drought Author, Anthony Artusa

NOAA/NWS/NCEP/Climate Prediction Center

USDM Map Services: contains archived maps

"For the contiguous 48 states, the U.S. Drought Monitor showed 34.01 percent of the area in moderate drought or worse, compared with 35.03 percent a week earlier.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 28.42 percent of the area in moderate drought or worse, compared with 29.26 percent a week earlier."



See: Latest Drought Impacts during the past week.

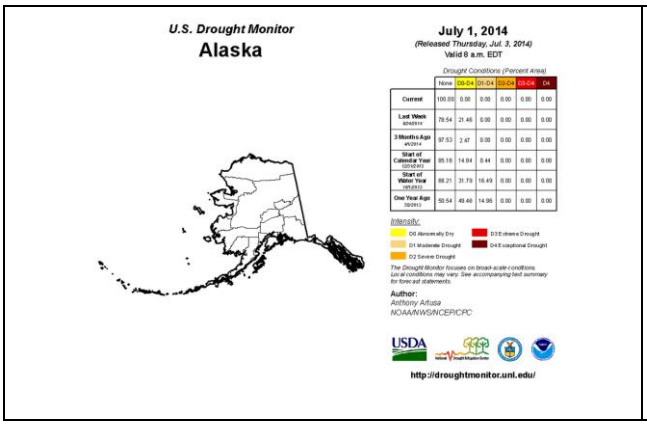
Current Drought Monitor weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, CO, TX, OK, and NM.

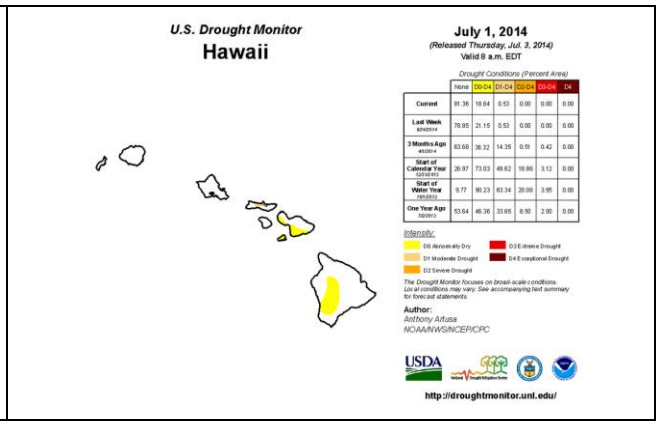
The latest drought indicator blend and component percentiles spreadsheet is a great resource for climate division drought statistics. This link is for the latest Drought Outlook (forecast). See climatological rankings.

*For more drought news, see Drought Impact Reporter. **New**: ENSO Blog.*

Drought Management Resources:

- ✓ http://www.usda.gov/oce/weather/Drought/AgInDrought.pdf
- ✓ Watch AgDay TV
- ✓ Drought Impacts Webinar Series
- ✓ NIDIS Quarterly Climate Impacts and Outlook
- ✓ The Spring 2014 edition of DroughtScape





"The 49th and 50th States show relatively benign drought conditions. No changes noted for Alaska and Hawaii this week. A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions for the figures that follow, click here."

Weekly Snowpack and Drought Monitor Update Report

Risk Management Web Resources

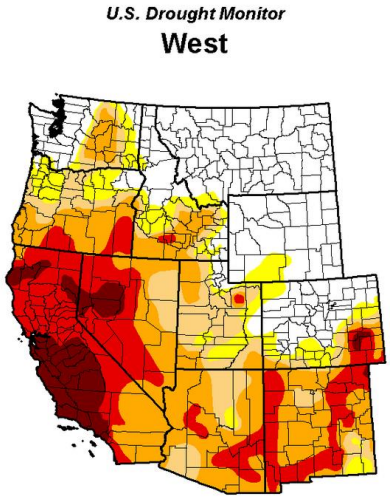
Drought Monitor for the Western States
Drought Impact Reporter for New Mexico
California Data Exchange Center & Flood Management
Intermountain West Climate Dashboard
California Sierra Nevada-related snow pack

U.S. Impacts during the past week:

Weeding things out (Kansas) – June 23

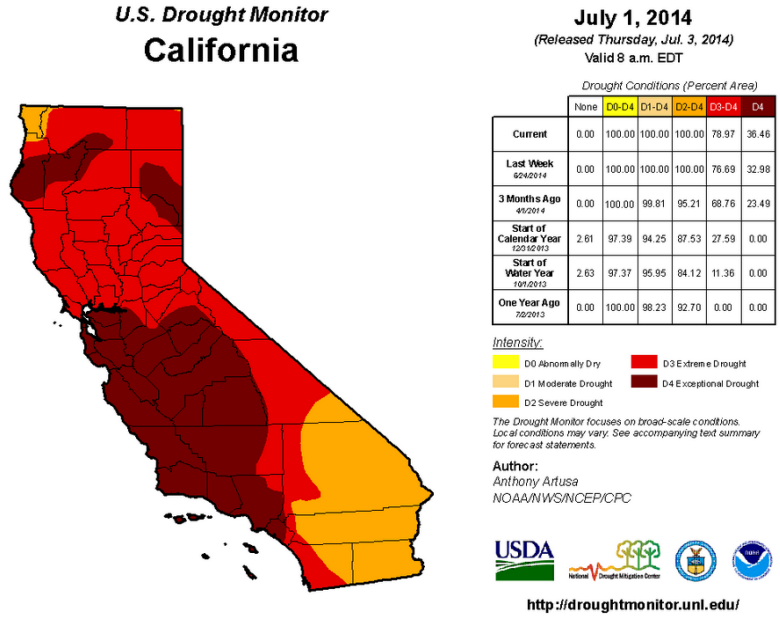
Even for desert, Phoenix has been ridiculously dry – (Arizona) – June 24

Click to enlarge maps



D3 and D4 increases in the West occurred this past week.

State with D-4 Exceptional Drought



D3 and D4 areas increased in California this past week.

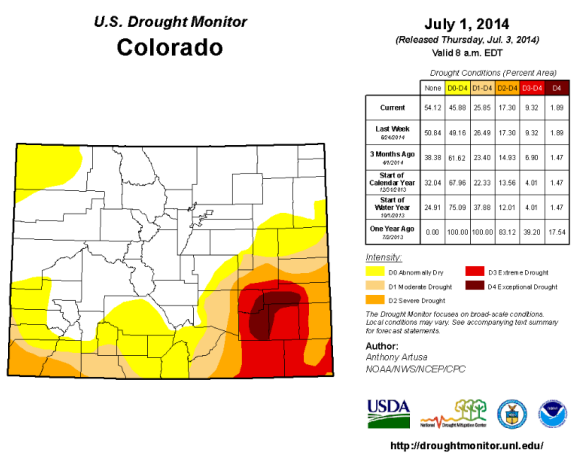
CA Drought Information Resources

Drought News from California

CAL FIRE: shooting off your own fireworks too dangerous – June 25
Super choppers confront California's weird wildfire season – June 27
California Drought: Snowmelt's path shows impact from Sierra to Pacific – June 21
Drought helps coho salmon set migration record – June 24
Plunge of tricolored blackbird population persists in the state, Sacramento Valley – June 19
Sudden oak death drying up with drought – June 22
California Senate deadlocks on $10.5-billion water bond – June 23
Drilling in South Bay to Replenish Wells Running Dry Due to California Drought – June 24
Drought leads to drastic measures in some towns – June 21
San Diego Water Board adopts order conditionally waiving regulation of 36 types of waste discharges – June 27

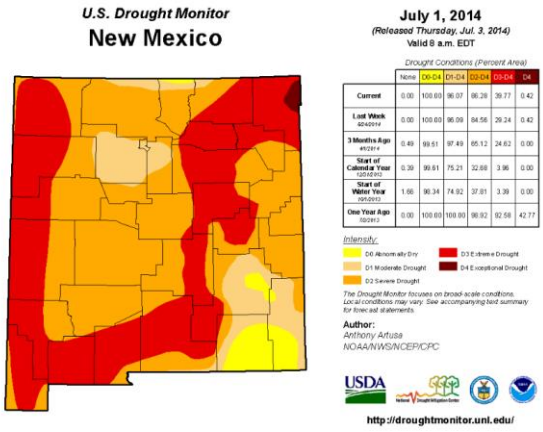
Weekly Snowpack and Drought Monitor Update Report

State with D-4 Exceptional Drought



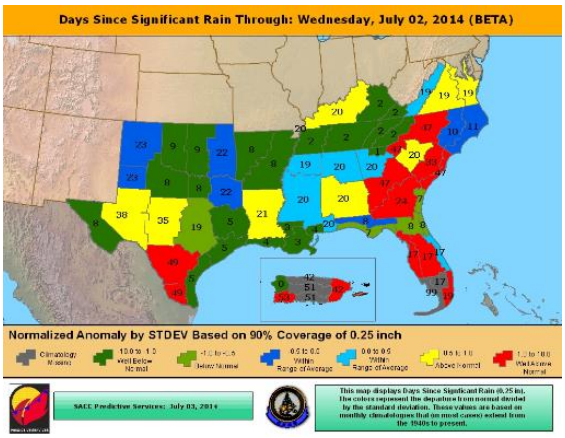
No changes have occurred this past week.

State with D-4 Exceptional Drought



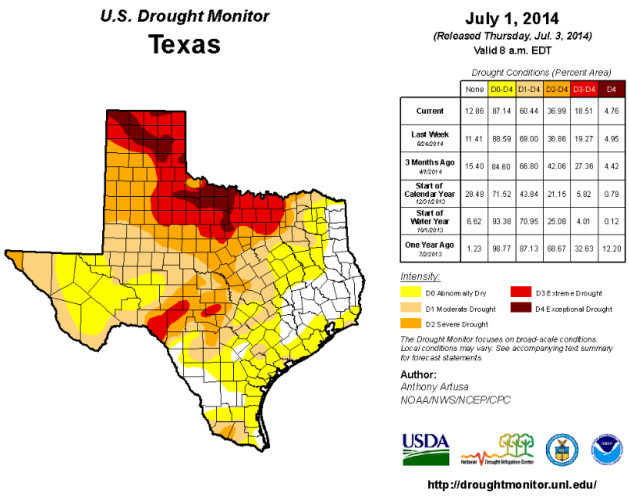
No changes have occurred this past week.

Texas Drought Website.
Texas Reservoirs.
Texas Drought Monitor Coordination Conference Call: on Monday's 2:00 PM - 3:00 PM CST



Days since Significant Rain Summary

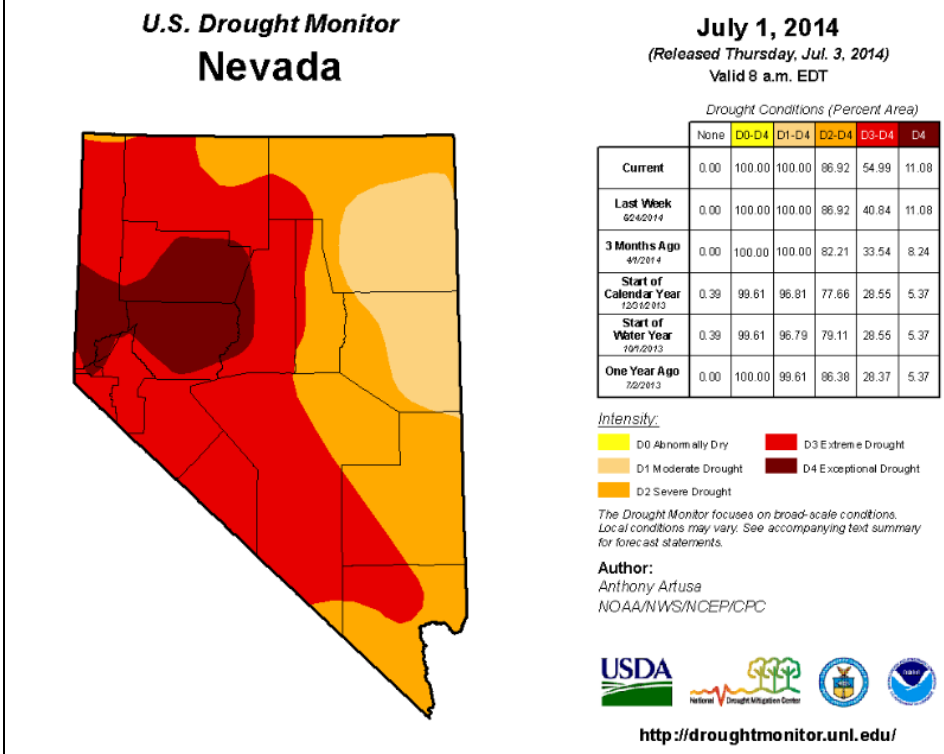
State with D-4 Exceptional Drought



A slight reduction in most drought categories occurred during the past week.

Weekly Snowpack and Drought Monitor Update Report

State with D-4 Exceptional Drought



D3 increase has occurred during this past week.

Nevada Drought News:

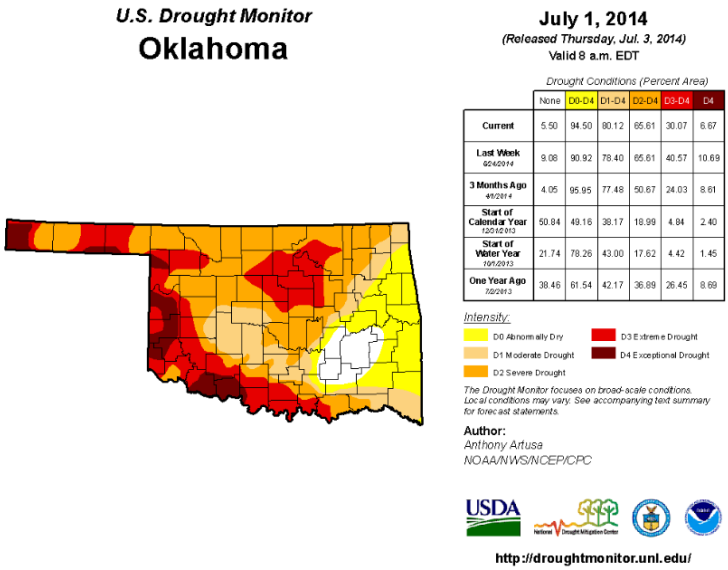
Western Nevada Fire Restrictions Expanding – June 27
Drought stresses Nevada wildlife – June 24

Related Area News

2014 Kansas Drought Report and Summary

- ***Past 30 days precipitation totals***
- ***Past 30 days precipitation percent of normal***
- ***Calendar Year precipitation totals***
- ***Calendar Year Precip percent of normal***
- ***Short Crop ET***

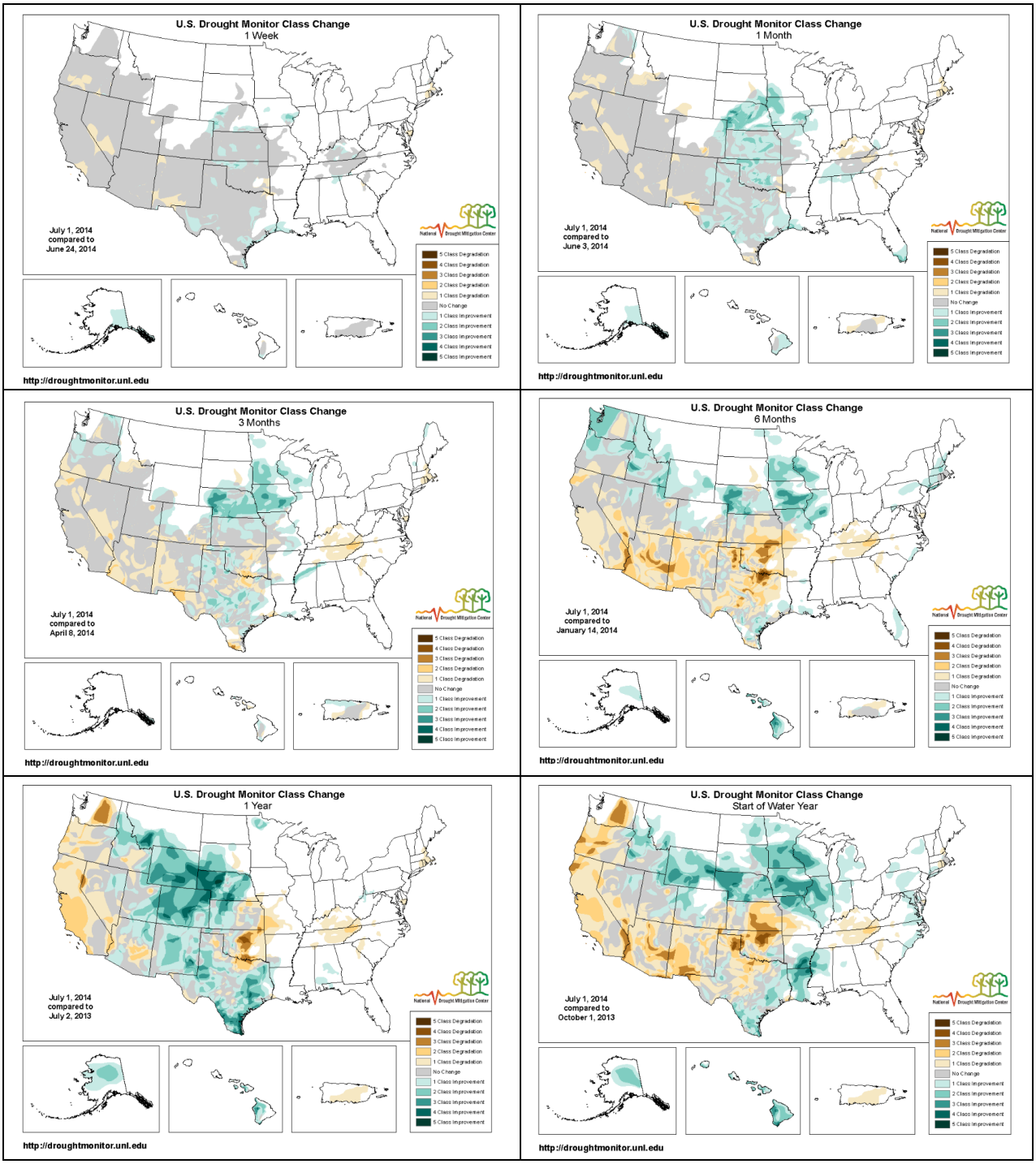
State with D-4 Exceptional Drought



A decrease in most drought categories occurred during this past week.

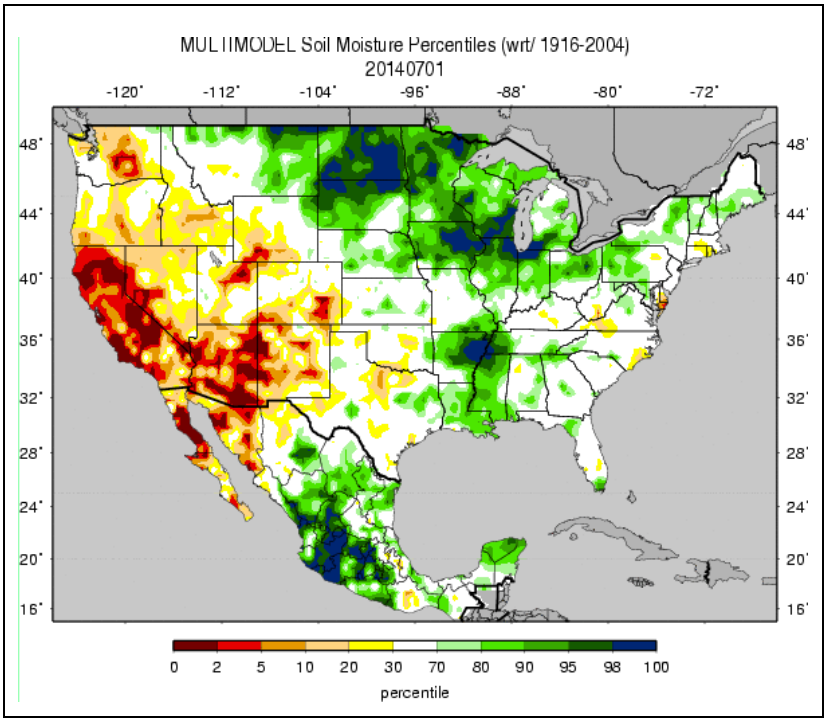
Changes in Drought Monitor Categories

Over Various Time Periods



Click on any of these maps to enlarge. Note how the conditions over the Rockies and northern Great Plains have improved between 6 to 12 months (middle right to lower left maps). However, also note that since the start of the 2014 Water Year last October, conditions over the middle and southern Great Plains have deteriorated significantly (lower right map).

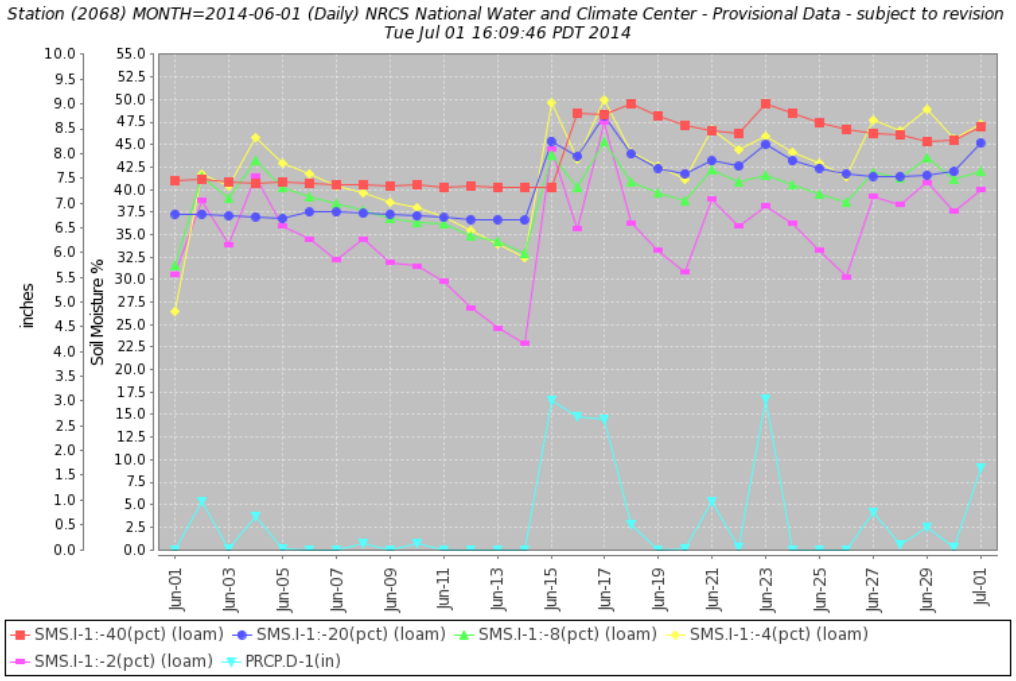
Soil Moisture



Soil moisture ranking in percentile as of July 1 shows dryness over California, Arizona, New Mexico, and parts of Washington, Oregon, and Idaho. Scattered dryness is also reported in other areas west of the Rockies. Very moist soils dominated eastern Montana to the Great Lakes, where the wettest locations were centered in Minnesota, and parts of the Dakotas, Wisconsin, and Iowa. The soils in the lower Mississippi River and parts of the mid-Atlantic states also had high moisture content.

Useful Hydrological Links: *Crop Moisture Index; Palmer Drought Severity Index; Standardized Precipitation Index; Surface Water Supply Index; Weekly supplemental maps, Minnesota Climate Working Group; Experimental High Resolution Drought Trigger Tool;* NLDAS Drought Monitor; Soil Moisture

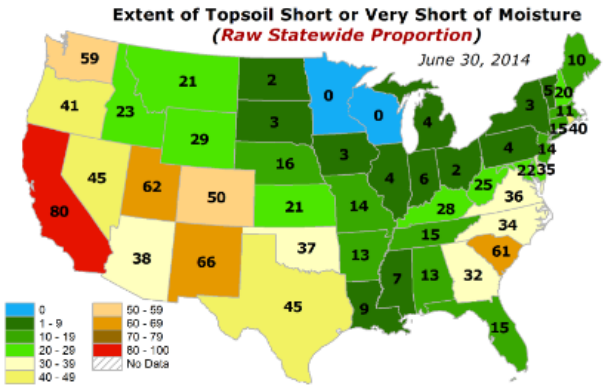
Soil Climate Analysis Network (SCAN)

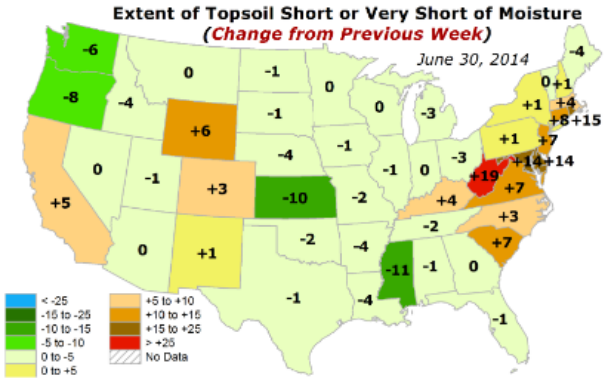


This NRCS resource shows soil moisture data at the SHAGBARK HILLS (2068) SCAN station located in northwest Iowa. Note the continued increase in soil moisture trend as a result of recent heavy rainfall (precipitation trace in light blue). The deeper soil sensors at 20 and 40 inches depth also show an increase in soil moisture from the heavy rain.

Useful Agriculture Links: *Vegetation Drought Response Index; Evaporative Stress Index; Vegetation Health Index; NDVI Greenness Map; GRACE-Based Surface Soil Moisture; North American Soil Moisture Network. Monthly Wild Fire Forecast Report.*

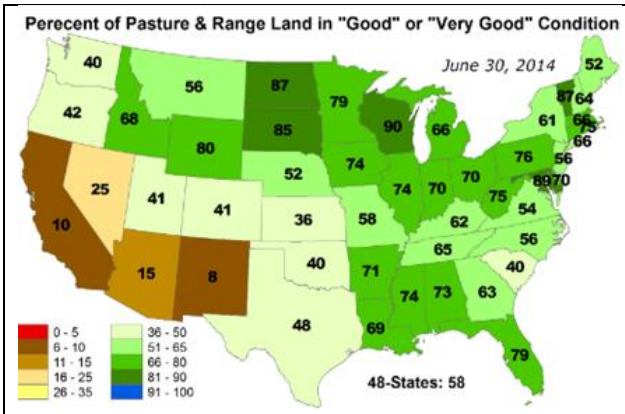
Topsoil and Pasture & Rangeland Conditions

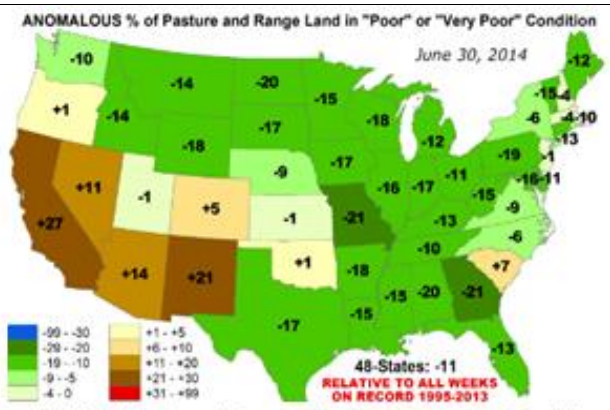


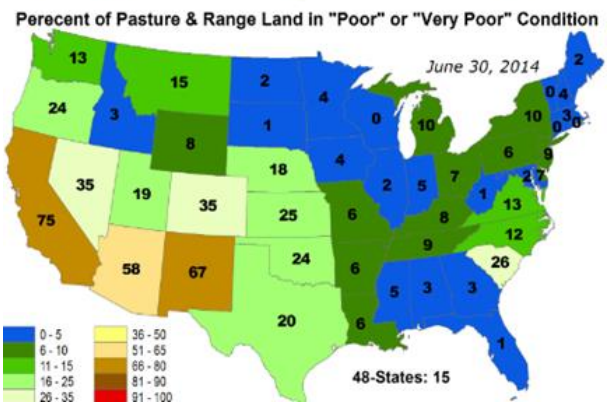


⇦ Topsoils are exceptionally poor (top) over New Mexico, California, and Utah with values representing more than 60 percent worse conditions than the median for this time of year (bottom panel). Locations in the northern Great Plains across to New England, and along the Mississippi River have good soil moisture conditions.

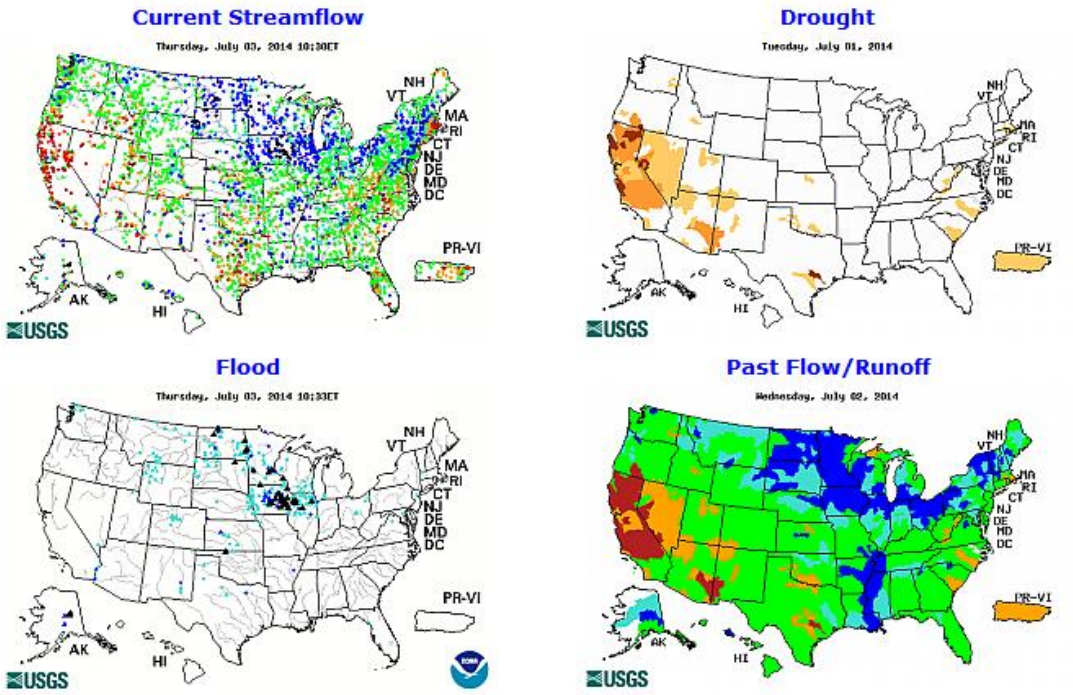
⇦ Many of the states east of the Mississippi River are doing well, as noted below. These conditions also extend across the northern Great Plains and northern Rockies. Pasture and rangelands are stressed over California, the Great Basin, the Southwest, and the southern half of the Great Plains. Conditions have remained about the same over this past week.





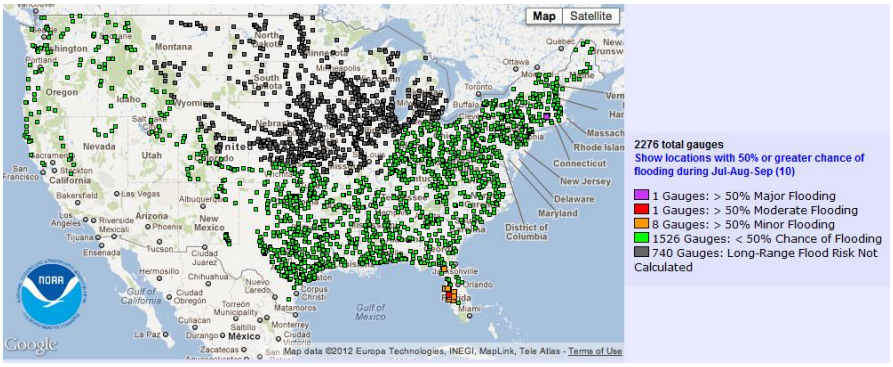


Streamflow



Streams are high over much of the upper Mississippi River basin (left maps). Flooding is occurring in many areas of the upper Mississippi River, the Red River of the North in North Dakota, Minnesota, Iowa, northern Illinois, and scattered flooding in the northeast (lower left map).

National Long-Range Outlook



Click maps to enlarge and update

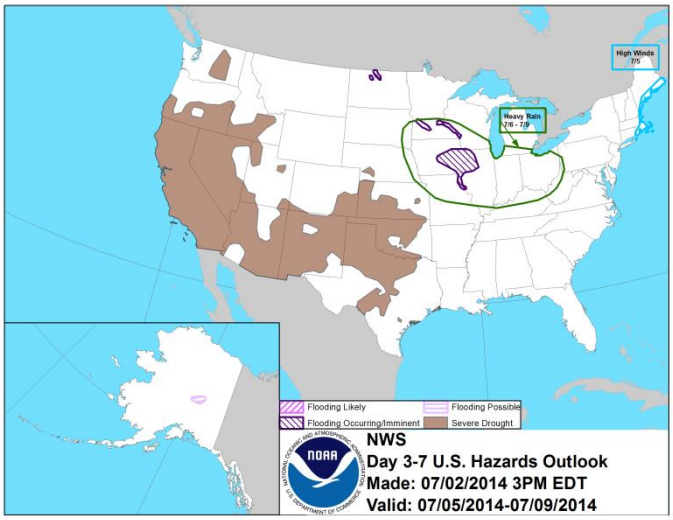
Currently the Upper Midwest part of the map has not been calculated for the long range flood outlook (dark gray dots).

During the next three months, there is a risk of flooding in a many areas of the upper Mississippi and Missouri Rivers and west-central Florida. Currently, 1 gage has a greater than 50% chance to experience major flooding; 1 gage for moderate flooding; and 8 gages for minor flooding.

These numbers represent a reduction in gages since last week.

Weather hazards

Heavy rains are expected over the upper Midwest from July 6 - 9. Flooding is occurring in southern Minnesota, Iowa, Illinois, northern Missouri, and northern North Dakota during the next several days. There is also an area of likely flooding in central Alaska.



National Drought Summary for July 1, 2014

Prepared by the Drought Monitor Author: Anthony Artusa, NOAA/NWS/NCEP/Climate Prediction Center.

Summary

"During the past 7-days, a series of weak upper-level disturbances and frontal systems at the surface brought widespread precipitation to much of the contiguous United States, outside of the Southwest and California. Heavy rain (2"-4", locally greater) fell across portions of the Upper Mississippi Valley, the northern Plains, the Pacific Northwest, the west-central Gulf Coast region, the general vicinity of the southern Appalachians, and the Northeast. A low pressure area off the East Coast of Florida was in the process of developing into a tropical depression, and would become Tropical Storm Arthur by the end of the period.

Alaska, Hawaii, and Puerto Rico

Moderate to heavy rain (0.5-3.0 inches, locally greater) fell across most of the D0 area in southeast Alaska, including the Panhandle. Most stream flows in this region are near to above-average. As a result, abnormal dryness was removed from the state. Preliminary reports suggest Anchorage may have its second wettest June on record. Ketchikan measured a record 5.45 inches of rain on June 22nd, breaking the previous record for that date of 1.74 inches set back in 1956. Juneau International Airport reported 7.46 inches of rain for the month of June, while normal rainfall for June is 3.24 inches. The previous June record was 6.69 inches, set in 2012. In Hawaii, the only alteration made to the depiction was to slightly resize and reposition the D0 area on the Big Island, based on observed rainfall data, the Vegetation Health Index (VHI), and ground reports from the Farm Service Agency (of the U.S. Department of Agriculture). No modifications were made to the drought depiction this week in Puerto Rico.

Mississippi Valley

A one-category upgrade was rendered to the drought depiction in Iowa, Illinois, and Louisiana, due to plentiful (and in some cases excessive) rainfall. At least 10 inches of rain was reported in Lake Charles in southwest Louisiana, while recent dryness is beginning to show up in northwest Louisiana. In northwest Illinois, four key stations in Mercer County reported between 4.64 and 5.70 inches of rain for the month of June. AHPS DNPs through 180-days indicate that (in a statistical sense) Mercer County is near the southern edge of a very persistent band of above-average rainfall. All that remains of the drought in Iowa are two small areas of D0, one in the southeast corner of the state, and one in the southwest corner.

Northeast and mid-Atlantic

Though moderate to heavy rain (greater than 0.5") fell across much of the region, it largely missed southeastern New England and the south-central Delmarva Peninsula, where the Percent of Normal Precipitation (PNP) is generally between 25-50 percent over the last 30-days (AHPS), and stream flows are in the lowest quartile of the historical distribution. Accordingly, abnormal dryness (D0) was expanded across southern and eastern portions of New England, and D0 was introduced to the south-central Delmarva Peninsula. These areas will need to be reassessed next week, once Tropical Storm (projected to be hurricane) Arthur moves through the region.

Ohio/Tennessee Valley

Moderate rain (0.5-2.0 inches) fell over Kentucky and Tennessee during the past 7-days. Stream flows are generally near-average in Kentucky, and above-average in Tennessee. One-category improvements were warranted in central and eastern sections of Kentucky, except where 30-day and 60-day precipitation deficits favored the retention of D0 conditions.

Southeast

Moderate precipitation (0.5-2.0 inches, locally heavier) was observed over northern Alabama and northern Georgia during the past week. Stream flows are running near to above-average in these areas, including that of the Paint Rock River in northeast Alabama. Accordingly, abnormal dryness was removed from northwest Georgia and northeast Alabama. In contrast, in east-northeast Georgia in the vicinity of the Savannah River, D0 was expanded approximately one county northwestward. The 30-day and 60-day Departure from Normal Precipitation (DNP) in this last region lend some support to this expansion. The North Carolina drought depiction has not been altered this week, but will be reassessed next week after the expected passages of both an active cold front and Tropical Storm Arthur (as of the 2pm update from the National Hurricane Center on July 2nd).

Southern and Central Plains

Two to four inch rains fell over southern and central portions of Nebraska, prompting 1-category upgrades for these areas. In central and southern Kansas, 2-5 inch rains (locally heavier) warranted one-category improvements, especially in places which received two to three times their normal rainfall for the week. In Oklahoma, widespread one-category improvements were made in the northern portion of the state, due to very heavy rains during the past 30-days. For example, in the town of Buffalo, OK, 10.44 inches of rain fell during the past month, compared to the normal June rainfall of 4.08 inches. Flash flooding was also reported in Buffalo. On June 30th, the Oklahoma Panhandle experienced a very impressive dust storm. In the southeast portion of the state, minor degradations were rendered to the drought depiction. Texas had an unexpectedly wet week, with very heavy precipitation along the Gulf Coast (generally 3-5 inches, locally greater), and moderate to heavy precipitation (0.5-3.0 inches) in the interior East, supporting 1-category improvements. Relatively small alterations were made to the depiction in southern and far western Texas, both improvements and degradations.

Southwest and California

Little if any precipitation was observed in the Southwest during the past week. In western New Mexico, severe drought (D2) was downgraded to extreme drought (D3), and general one-category degradation was rendered to the depiction in the southernmost counties of Luna, Dona Ana, and Otero. El Paso has received only 25 percent of its normal precipitation since January 1, 2014, making this the 7th driest year on record (so far) since 1879. High temperatures have been exacerbating drought-related impacts. Every day in June, El Paso was at or above normal, with a June departure of about +6.1 degrees F, making this the second warmest June on record, only behind June of 1994. In northeast Utah, most of the D2 area was downgraded to D3 conditions, while moderate rain (0.5-2.0 inches) supported a one-category improvement to parts of northeast Colorado. In southern Nevada, the continued lack of rain prompted the expansion of extreme drought (D3) conditions across parts of Nye, Lincoln, and Clark Counties, while in southern California, exceptional drought (D4) was expanded across Ventura, Los Angeles, and much of Orange Counties.

The Pacific Northwest

In the rain-shadow of the Oregon Cascades, conditions have continued to decline in the Klamath Valley area. One-category degradations (D2 to D3) were rendered to the drought depiction over south-central Oregon. This area is experiencing its worst drought in 20 years, and the first round of involuntary water shutoffs since 2001 has been implemented. In addition, the area of extreme drought (D3) in the southeast counties of Harney and Matheur has been connected with the adjacent D3 area in northwest Humboldt County in Nevada.

Looking Ahead

During July 3-7, 2014, most of the contiguous United States is expected to receive a half-inch or less of rain, though there are a few exceptions. Northern and central Florida, the Outer Banks of North Carolina, near the mid-Atlantic Coast, and the southern and eastern New England coasts may get 2-4 inches of rain, in part from what is currently Tropical Storm (projected to be hurricane) Arthur and from an active cold front approaching from the west. In the Middle Mississippi Valley, 0.5-1.0 inch of rain is forecast during this period, while 0.5-1.5 inches of rain is expected in association with the onset of the Southwest Monsoon across portions of Arizona, New Mexico and northern Texas. Temperatures during the period are anticipated to be mostly within 4 degrees of normal, though very brief departures of 8-10 degrees above normal are projected for the northern Plains region.

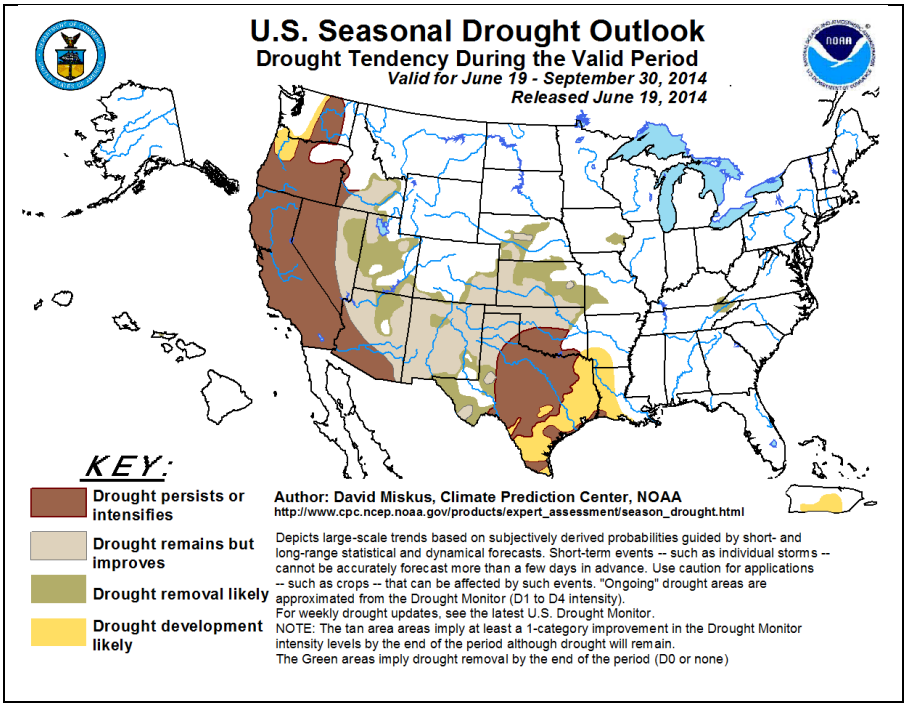
For the ensuing 5-day period, July 8-12, 2014, there are enhanced odds of above-median rainfall in the east-central CONUS, the Great Lakes region, southern Florida, and the Southwest. Below-median precipitation is favored over the Pacific Northwest, the northern Rockies, and southwest Alaska. Mean temperatures for this period are favored to be above-normal over approximately the eastern and western thirds of the lower 48 states, and the southern half of Alaska, and near to below-normal temperatures are favored over the central third of the CONUS."

Supplemental Drought Information

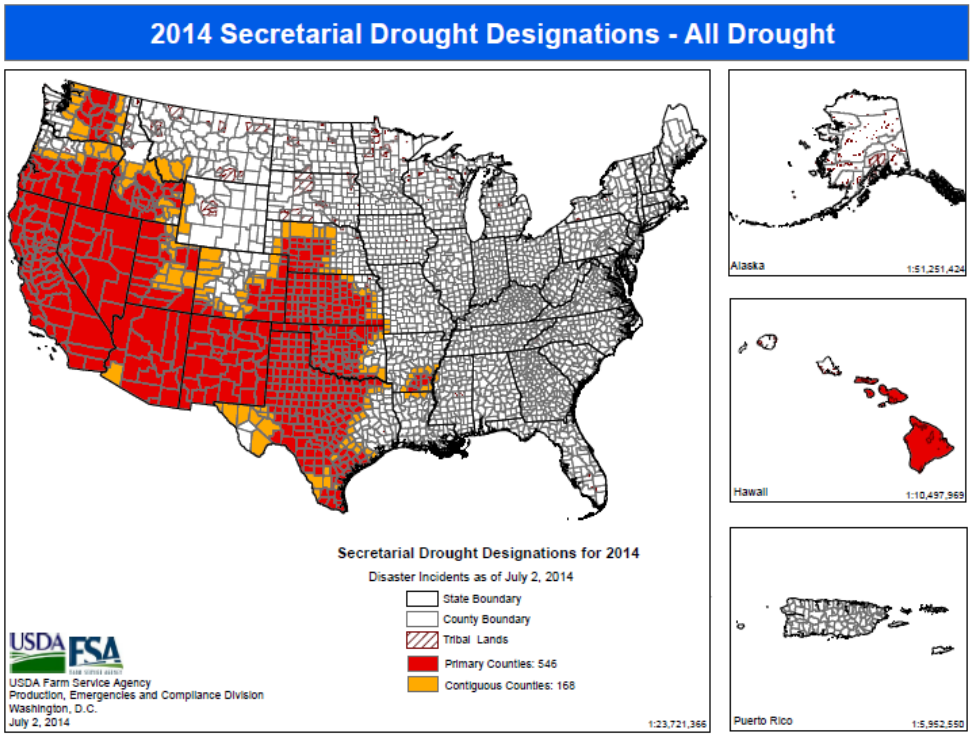
Seasonal Drought Outlook

Drought is expected to persist over much of the West and the southern Great Plains. Improvements are expected from the Southwest to the central Great Plains.

Also see: National Significant Wildland Fire Potential Outlook (updated on the **first** of each month) contains a content summary of the previous month's conditions.



2014 Secretarial Drought Designations



Refer to the USDA Drought Assistance website and National Sustainable Agriculture Information Service.

Read about the new USDA Regional Climate Hubs.

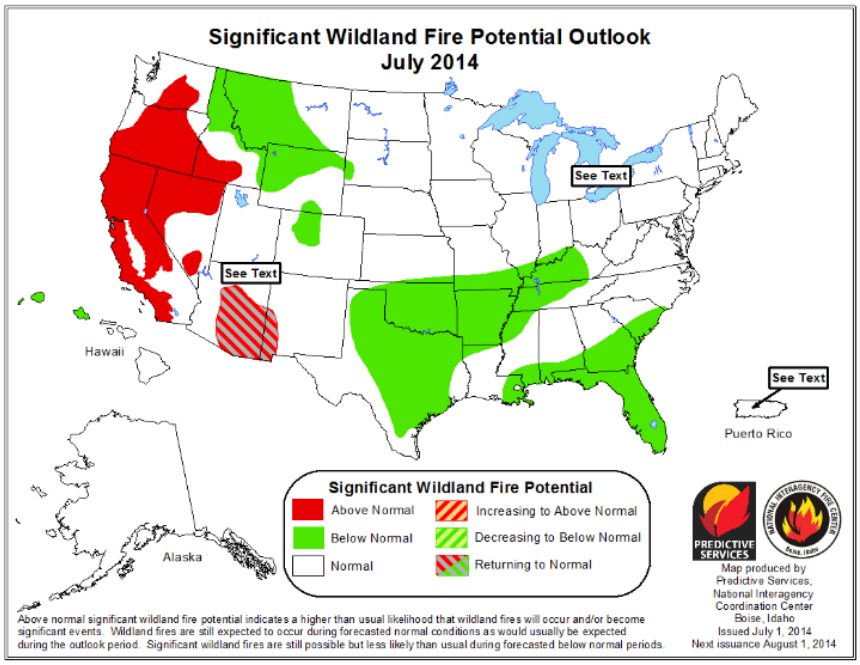
New useful resource: NASS Quick Stats

Fire Potential Outlook

July Forecast

Above normal fire potential will expand to include northern California, Nevada, Oregon, eastern Washington, and southern Idaho.

Below normal fire potential will continue over the northern Rockies and lower and mid-Mississippi, Texas, Florida, and along the Gulf Coast.



Additional Maps

U.S. Maps PowerPoint presentation: http://dmcommunity.unl.edu/maps/US-Maps.ppt.

Regional zooms of ACIS station data percent-of-normal precipitation: http://dmcommunity.unl.edu/maps/All-CONUS-ACIS-PNP.pptx.

National Water and Climate Center (NWCC) Surface Water Supply Index (SWSI) maps: http://www.wcc.nrcs.usda.gov/wsf/swsi.html

Supplemental Drought-Agriculture News

Download archived "U.S. Crops in Drought" files

"The following is a collection of drought-related news stories from the past seven days or so. Impact information from these articles is entered into the Drought Impact Reporter. A number of these articles will also be posted on the Drought Headlines page at the NDMC website. The list is compiled by Denise D. Gutzmer, Drought Impact Specialist, and National Drought Mitigation Center.

Fire, fireworks restrictions in the South, Southwest
With the Fourth of July holiday on the horizon, many communities in the South and Southwest are assessing drought and the fire danger and have chosen to restrict open fires and fireworks to reduce the likelihood of wildfires.

California water supplies
Water is becoming a greater concern in California as communities look at water usage, see the need for more conservation and groundwater levels continue to decline.

- Groundwater levels in the Bay Area have dropped, forcing well owners to drill deeper at a hefty price to reach water again. Some homeowners plan to have water trucked in.
- The El Dorado Irrigation District told its Outingdale water customers to use no more than 68 gallons of water daily because the district has junior water rights in the Cosumnes River, which is the town's only source of water.

Record coho salmon migration in Marin County, California
Despite the drought, nearly 20,000 coho salmon migrated out of Lagunitas Creek to the ocean in Marin County. This was the largest salmon migration recorded in Lagunitas Creek since scientists began estimating fish numbers in 2006. The previous record was 11,000 coho in 2012. The number of fish was surprising because the lower water levels cut into the number of fish able to reproduce by laying eggs in creeks and tributaries along the Central California coast. The juveniles would normally swim into the lower reaches of the Lagunitas Creek in late fall and winter, but were prevented from doing so by drought and low water flows. The fish that remained upstream plus the fish present in the lower stretches of Lagunitas Creek resulted in an overall larger coho population.

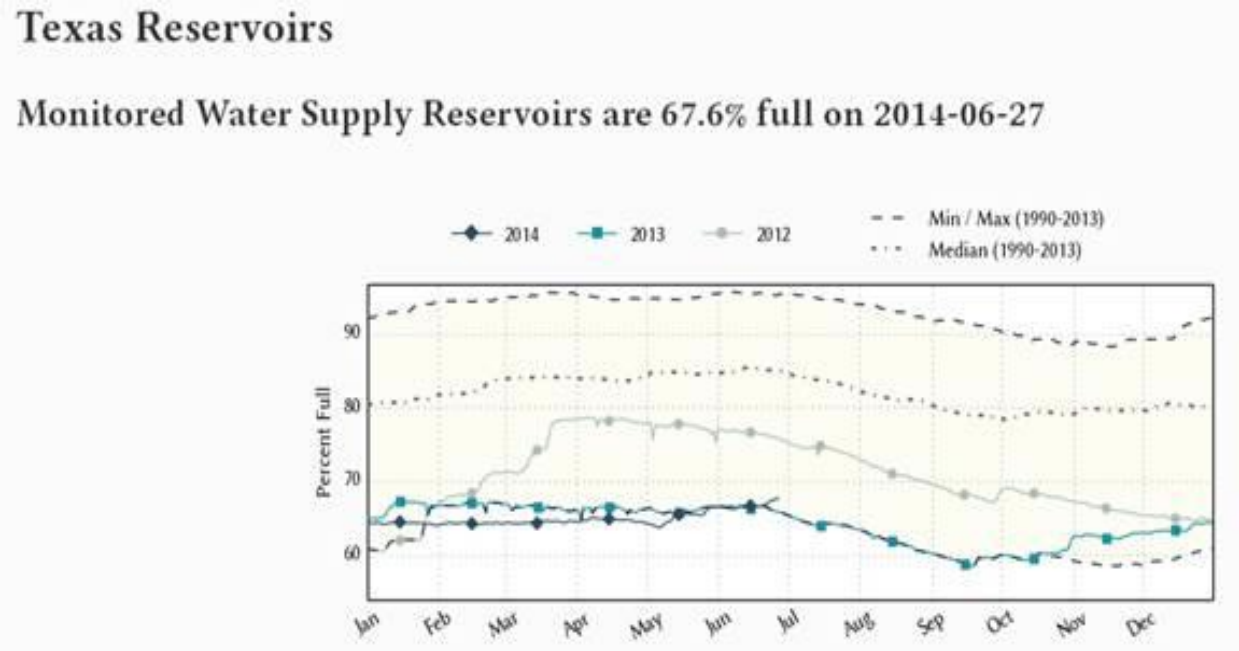
Drought harming Nevada wildlife
Nevada wildlife was struggling with the drought and scarcity of their usual food sources. Deer herds in northern Nevada were shrinking, fisheries were on the verge of drying up in the valleys and wildlife were creeping into residential areas, drawn to food and water. More people in the Reno-Sparks area have called about snakes. Bears were roaming in search of food around Lake Tahoe and across the Carson Range because drought reduced the availability of berries and other foods the bears usually eat.

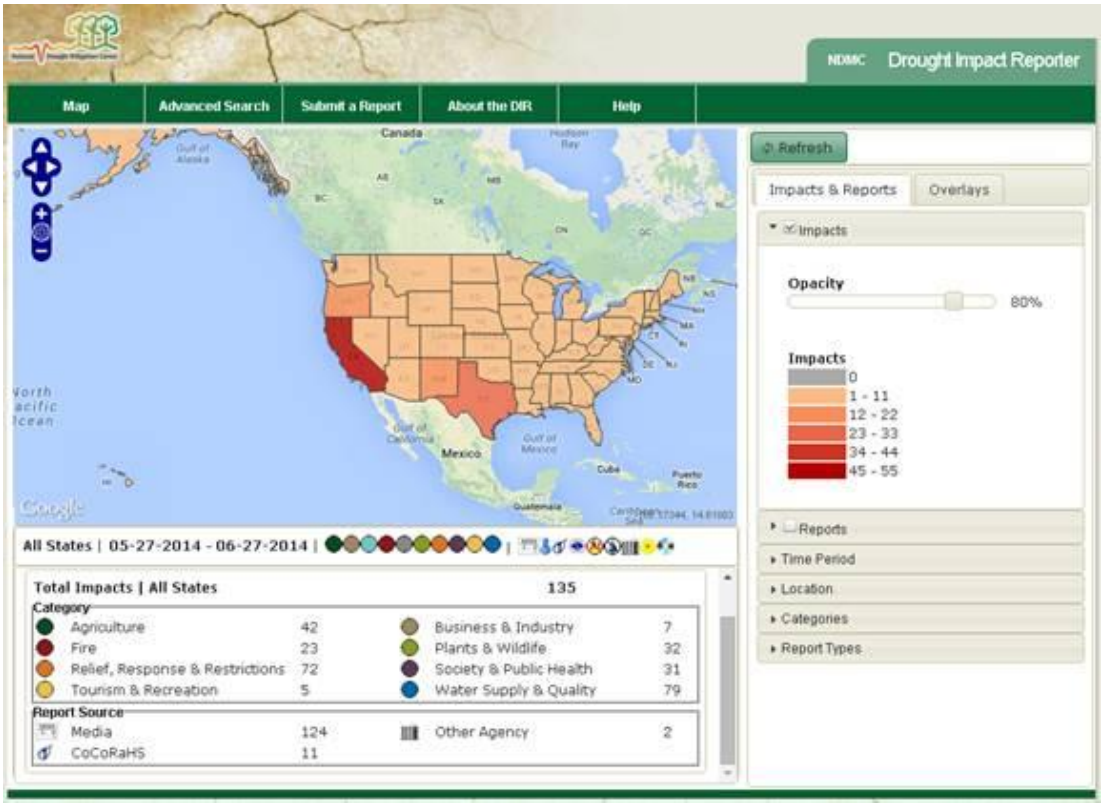
Catch limits were lifted at Wildhorse and Willow Creek reservoirs in mid-May to allow anglers to take as many of the fish as possible before the reservoirs become uninhabitable for the fish this summer. Lahontan and Rye Patch reservoirs were both low and may suffer fish kills too.

Tricolored blackbird population declining in California
A recent survey of tricolored blackbirds throughout California showed a steep decline in the birds' population, a decrease of 44 percent since 2011. The survey was done by UC Davis, Audubon California and state and national wildlife agencies. Drops in the birds' population were noted from the San Joaquin and Sacramento valleys south to Riverside County. The survey conducted this spring found 145,000 tricolored blackbirds, compared to 260,000 in 2011.

Sudden oak death slowed by drought
Drought has slowed the advance of sudden oak death, a disease which has killed thousands of mighty oak trees in California, by limiting the number of spores that spread the disease. The rate of infection among California bay laurel trees tested in 17 western counties between Fort Bragg, South Carolina and San Luis Obispo ranged from 2 to 10 percent between April 4 and June 5. In wetter years, the infection rate ranges from 20 to 80 percent.

Rain refilling Texas reservoirs
Recent rainfall has refilled Texas reservoirs slightly, increasing storage from 66.0 percent one month ago to 67.6 percent on June 27. Graphic courtesy of Water Data for Texas.





Tea Cup Reservoir Depictions

- http://www.usbr.gov/uc/water/basin/ ← Upper Colorado
- http://www.usbr.gov/uc/wcao/water/basin/tc_gr.html; ← Upper Snake
- http://www.usbr.gov/pn/hydromet/burtea.html ← Upper Colorado
- http://www.usbr.gov/uc/water/basin/tc_cr.html ← Upper Colorado
- http://www.usbr.gov/pn/hydromet/select.html ← Pacific Northwest
- http://www.sevierriver.org/reservoirs/teacup-diagram-of-reservoirs/ ← Sevier River Water (UT)

Analysis of drought's effects on agriculture in June 2014

By Brad Rippey, Meteorologist, Office of the Chief Economist, U.S. Department of Agriculture

"During the four-week period ending on July 1, 2014, contiguous U.S. drought coverage declined 3.31 percentage points to 34.01. Coverage reached its year-to-date peak of 40.06% on May 6, but subsequent rainfall across portions of the nation's mid-section has reduced drought's imprint.

- Nevertheless, drought still covers a substantial portion of the central and southern Plains and the western U.S. On July 1, the highest level of drought—D4, or exceptional drought—was noted in portions of California (36%), Nevada (11%), Oklahoma (7%), Texas (5%), and Colorado (2%). California also led the nation with 79% coverage of extreme to exceptional drought (D3 to D4).

- In addition, California topped the U.S. with 75% of its rangeland and pastures rated in very poor to poor condition on June 29, according to USDA. Following California were New Mexico (67% very poor to poor), Arizona (58%), Colorado (35%), and Nevada (35%). According to the latest "agriculture in drought" statistics, based on the July 1 Drought Monitor, 25% of the domestic hay acreage and 36% of the U.S. cattle inventory were located in a drought-affected area.

- The nation's winter wheat crop suffered from the effects of drought, a harsh winter, and several spring freezes. Based on the "agriculture in drought" statistics, 46% of the winter wheat production area was within an area experiencing drought on July 1. Nearly half (44%) of the U.S. winter wheat was rated in

very poor to poor condition by USDA on June 29, paced by Oklahoma (76% very poor to poor), Texas (63%), and Kansas (61%), as May and June rainfall arrived too late to revive the crop. During the last two decades, only the drought-affected crops of 2001-02 and 2005-06 were rated lower overall at end of the growing season. The winter wheat harvest was well underway in southern production areas, with 89% of Oklahoma's crop cut by June 29.

- Near-record to record-setting June rainfall eradicated residual drought from the Midwest. As a result, drought covered just 5% of the U.S. soybean area and 8% of the corn area by July 1. Consequently, roughly three-quarters of the U.S. corn and soybeans were rated in good to excellent condition by the end of June. Corn, rated 75% good to excellent on June 29, has not been rated as highly at this time of year since 2003. That year, on the same date, corn was also rated 75% good to excellent. Soybeans, rated 72% good to excellent on June 29, have not been rated as highly at this time of year in the last two decades.

- Weather outlook: The NWS has issued a hurricane warning along the North Carolina coast from Surf City to the Virginia border. Early on Friday, July 4, Arthur is expected to make its closest pass to North Carolina's Outer Banks, possibly making landfall. Later in the day, conditions will begin to improve along the mid-Atlantic coast as Arthur begins to accelerate northeastward. Rainfall totals associated with Arthur and an approaching cold front could reach 2 to 6 inches along the Atlantic Seaboard from Florida to Maine. Farther west, showers will return to the northern Plains and Midwest during the weekend and early next week, with 1- to 2-inch totals possible in the latter region. Elsewhere, monsoon showers will begin to develop in the Four Corners States, while hot weather will persist across the remainder of the West and overspread the Plains."

PLEASE NOTE: The next issuance of this emailed drought update will be Thursday, August 7, 2014, unless conditions warrant an earlier release. The "U.S. Crops in Drought" products will still be produced on a weekly basis, and can be viewed at:

http://www.usda.gov/oce/weather/Drought/AgInDrought.pdf

Archived "U.S. Crops in Drought" files can be downloaded at:

http://drought.unl.edu/Planning/Impacts/USAginDroughtArchive.aspx

State Activities

State government drought activities can be tracked through their drought plans. NRCS Snow Survey and Water Supply Forecasting (SSWSF) Program State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SSWSF information. Additional information describing the tools available from the Drought Monitor can also be found at the U.S. Drought Portal.

More Information

The National Water and Climate Center (NWCC) Homepage provides the latest available snowpack and water supply information. This document is available weekly. CONUS Snowpack and Drought Reports from 2007 are available online. Reports from 2001-2006 are available on request.

This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/

David W. Smith

Acting Deputy Chief, Soil Science and Resource Assessment